TEST REPORT

Reference No.	:	WTF16S1166736-2E
FCC ID	:	2AKFR-41000
Applicant	:	Hestan Smart Cooking
Address	:	1 Meyer Plaza, Vallejo California 94590, United States
Manufacturer	:	Zhongshan Yalesi Electric Co.,Ltd
Address	:	Shenghui Bei Industrial Area, Nantou Town, Zhongshan City, China
Product Name	:	Portable Induction Cooktop
Model No.	:	41000
Standards	:	FCC CFR47 Part 15 Section 15.249: 2016
Date of Receipt sample	:	Nov. 29, 2016
Date of Test	:	Dec. 01 – 20, 2016
Date of Issue	:	Dec. 22, 2016
Test Result	:	Pass

Remarks:
The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

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Approved by:

Philo Zhong / Manager

2 Contents

3 Revision History

Test report No.	Date of Receipt sample	Date of Test	Date of Issue	Purpose	Comment	Approved
WTF16S1166736-2E	Nov. 29, 2016	Dec. 01 – 20. 2016	Dec. 20, 2016	original	-	Valid

4 General Information

4.1 General Description of E.U.T.

Product Name	:Portable Induction Cooktop
Model No.	:41000
Model Differences	:N/A
Type of Modulation	:GFSK
Frequency Range	:2402MHz-2480MHz, separated by 2MHz,40 Channels in total
Bluetooth Version	:4.0 (BLE only)
The Lowest Oscillator	:32.768KHz
Inveter for Induction heating	:27KHz
Antenna installation	:PCB Printed Antenna

4.2 Details of E.U.T.

Technical Data : 120V 60Hz 1600W

4.3 Channel List

BLE mode

Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
0	2402	1	2404	2	2406	3	2408
4	2410	5	2412	6	2414	7	2416
8	2418	9	2420	10	2422	11	2424
12	2426	13	2428	14	2430	15	2432
16	2434	17	2436	18	2438	19	2440
20	2442	21	2444	22	2446	23	2448
24	2450	25	2452	26	2454	27	2456
28	2458	29	2460	30	2462	31	2464
32	2466	33	2468	34	2470	35	2472
36	2474	37	2476	38	2478	39	2480

4.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **IC – Registration No.:7760A-1**

  Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Industry Canada. The acceptance letter from the Industry Canada is maintained in our files. Registration number 7760A-1, Oct 15, 2015.

- **FCC Test Site 1#– Registration No.: 880581**

  Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory `has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 880581, April 29, 2014.

- **FCC Test Site 2#– Registration No.: 328995**

  Waltek Services(Shenzhen) Co., Ltd. EMC Laboratory `has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 328995, December 3, 2014.

4.5 Test Mode

All test mode(s) and condition(s) mentioned were considered and evaluated respectively by performing full tests, the worst data were recorded and reported.

Table 1 Tests carried out under FCC part 15.247

Test mode	Low channel	Middle channel	High channel
BLE Transmitting	2402MHz	2440MHz	2480MHz

Table 2 Tests carried out under FCC part 15.207&15.209

Test Item	Test Mode1*	Test Mode2
Conducted Emissions	Maximum power under BLE Transmitting	Minimum power under BLE Transmitting
Radiated Emissions	Maximum power under BLE Transmitting	Minimum power under BLE Transmitting
Note: "*" show the worst case mode, all test mode were tested and passed, Only the worst case mode which were recorded in this report.		

5 Equipment Used during Test

5.1 Equipments List

Conducted Emissions at Mains Terminals Disturbance Voltage(1#)						
Item	**Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Last Calibration Date**	**Calibration Due Date**
1	EMI Test Receiver	R&S	ESCI	100947	Sep.12, 2016	Sep.11, 2017
2	LISN	R&S	ENV216	100115	Sep.12, 2016	Sep.11, 2017
3	Cable	Top	TYPE16(3.5M)	-	Sep.12, 2016	Sep.11, 2017
Conducted Emissions at Mains Terminals Disturbance Voltage(2#)						
Item	**Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Last Calibration Date**	**Calibration Due Date**
1	EMI Test Receiver	R&S	ESCI	101155	Sep.12, 2016	Sep.11, 2017
2	LISN	SCHWARZBECK	NSLK 8128	8128-289	Sep.12, 2016	Sep.11, 2017
3	Limiter	York	MTS-IMP-136	261115-001-0024	Sep.12, 2016	Sep.11, 2017
4	Cable	**Laplace**	RF300	-	Sep.12, 2016	Sep.11, 2017
3m Semi-anechoic Chamber for Radiation(1#)						
Item	**Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Last Calibration Date**	**Calibration Due Date**
1	Spectrum Analyzer	R&S	FSP	100091	Apr.29, 2016	Apr.28, 2017
2	Amplifier	Agilent	8447D	2944A10178	Jan.13, 2016	Jan.12, 2017
3	Active Loop Antenna	Beijing Dazhi	ZN30900A	0703	Oct.17, 2016	Oct.16, 2017
4	Trilog Broadband Antenna	SCHWARZBECK	VULB9163	33 6	Apr.09, 2016	Apr.08, 2017
5	Coaxial Cable (below 1GHz)	Top	TYPE16(13M)	-	Sep.12, 2016	Sep.11, 2017
6	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120 D	667	Apr.09, 2016	Apr.08, 2017
7	Broad-band Horn Antenna	SCHWARZBECK	BBHA 9170	335	Apr.09, 2016	Apr.08, 2017
8	Broadband Preamplifier	COMPLIANCE DIRECTION	PAP-1G18	2004	Apr.13, 2016	Apr.12, 2017
9	Coaxial Cable (above 1GHz)	Top	1GHz-18GHz	EW02014-7	Apr.13, 2016	Apr.12, 2017
3m Semi-anechoic Chamber for Radiation(2#)						
Item	**Equipment**	**Manufacturer**	**Model No.**	**Serial No.**	**Last Calibration Date**	**Calibration Due Date**
1	Test Receiver	R&S	ESCI	101296	Apr.13, 2016	Apr.12, 2017
2	Trilog Broadband Antenna	SCHWARZBECK	VULB9160	9160-3325	Apr.09, 2016	Apr.08, 2017
3	Amplifier	ANRITSU	MH648A	M43381	Apr.13, 2016	Apr.12, 2017

4	Cable	HUBER+SUHNER	CBL2	525178	Apr.13, 2016	Apr.12, 2017

5.2 Measurement Uncertainty

Parameter	Uncertainty
Radio Frequency	± 1 x 10^{-6}
RF Power	± 1.0 dB
RF Power Density	± 2.2 dB
Radiated Spurious Emissions test	± 5.03 dB (Bilog antenna 30M~1000MHz)
	± 5.47 dB (Horn antenna 1000M~25000MHz)

5.3 Test Equipment Calibration

All the test equipments used are valid and calibrated by CEPREI Certification Body that address is No.110 Dongguan Zhuang RD. Guangzhou, P.R.China.

6 Test Summary

Test Items	Test Requirement	Result
Conducted Emissions	15.207	C
Radiated Emission	15.249(a) 15.209 15.205(a)	C
Outside of Band Emission	15.249 15.205 15.209	C
20dB Bandwidth	15:215(c)	C
Antenna Requirement	15.203	C
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	1.1307(b)(1)	C
Note: C=Compliance; NC=Not Compliance; NT=Not Tested; N/A=Not Applicable		

7 Conducted Emission

Test Requirement: FCC CFR 47 Part 15 Section 15.207

Test Method: ANSI C63.10:2013;ANSI C63.4:2014

Test Result: PASS

Frequency Range: 150kHz to 30MHz

Class/Severity: Class B

Limit:

Frequency (MHz)	Conducted Limit (dBμV)	
	Qsi-peak	Average
0.15 to 0.5	66 to 56*	56 to 46*
0.5 to 5.0	56	46
5.0 to 30	60	50
*Decreases with the logarithm of the frequency.		

7.1 E.U.T. Operation

Operating Environment **:**

Temperature: 25.5 °C

Humidity: 51 % RH

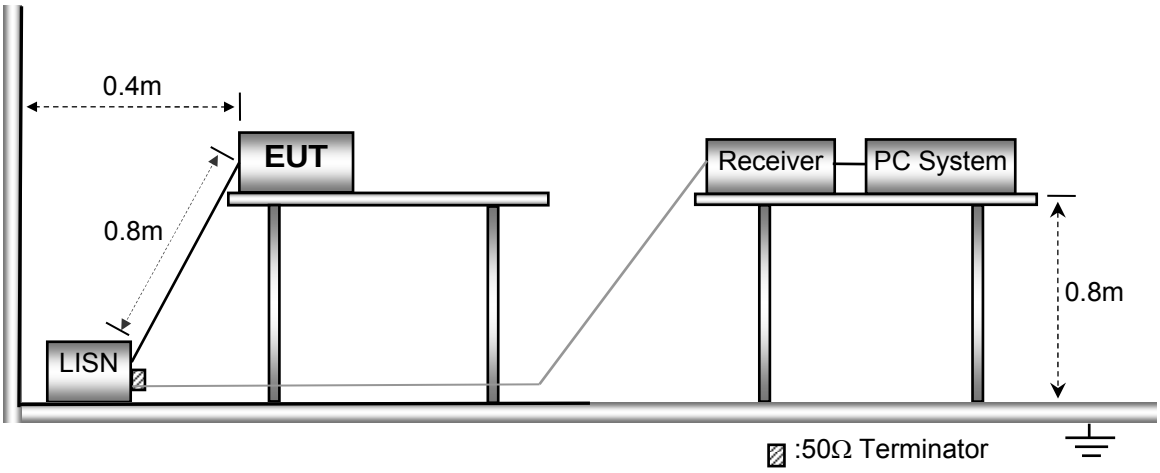
Atmospheric Pressure: 101.2kPa

EUT Operation **:**

Refer to section 4.5.

7.2 EUT Setup

The conducted emission tests were performed using the setup accordance with the ANSI C63.10:2013.

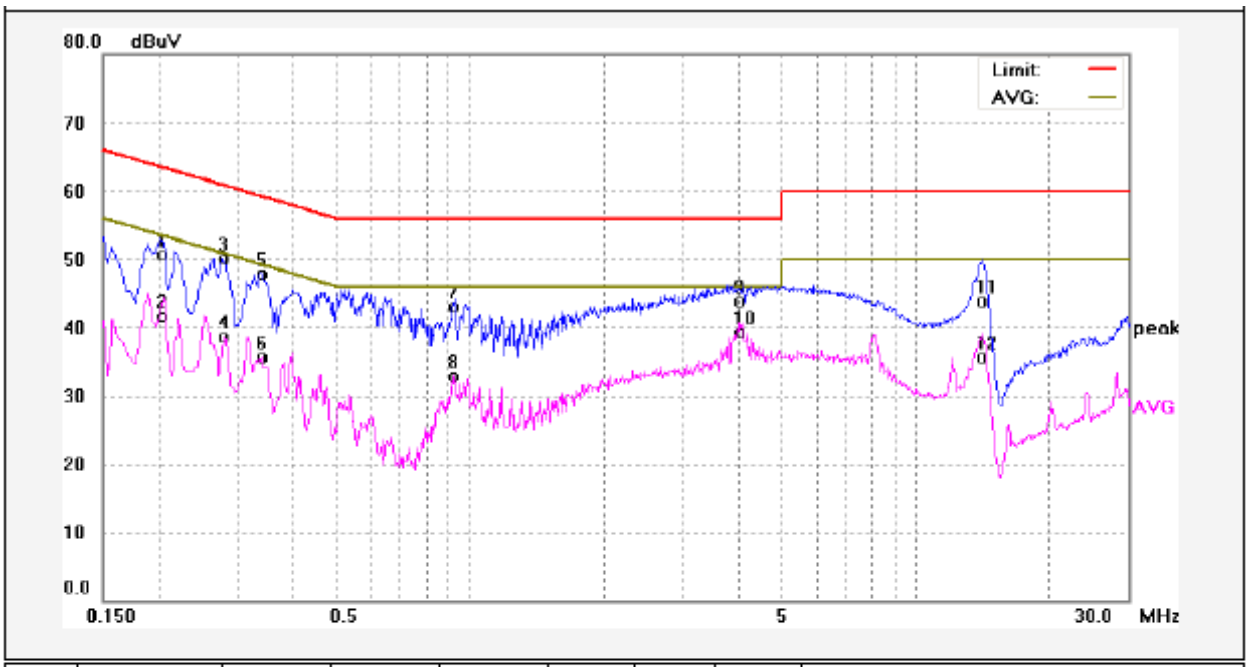


7.3 Measurement Description

The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

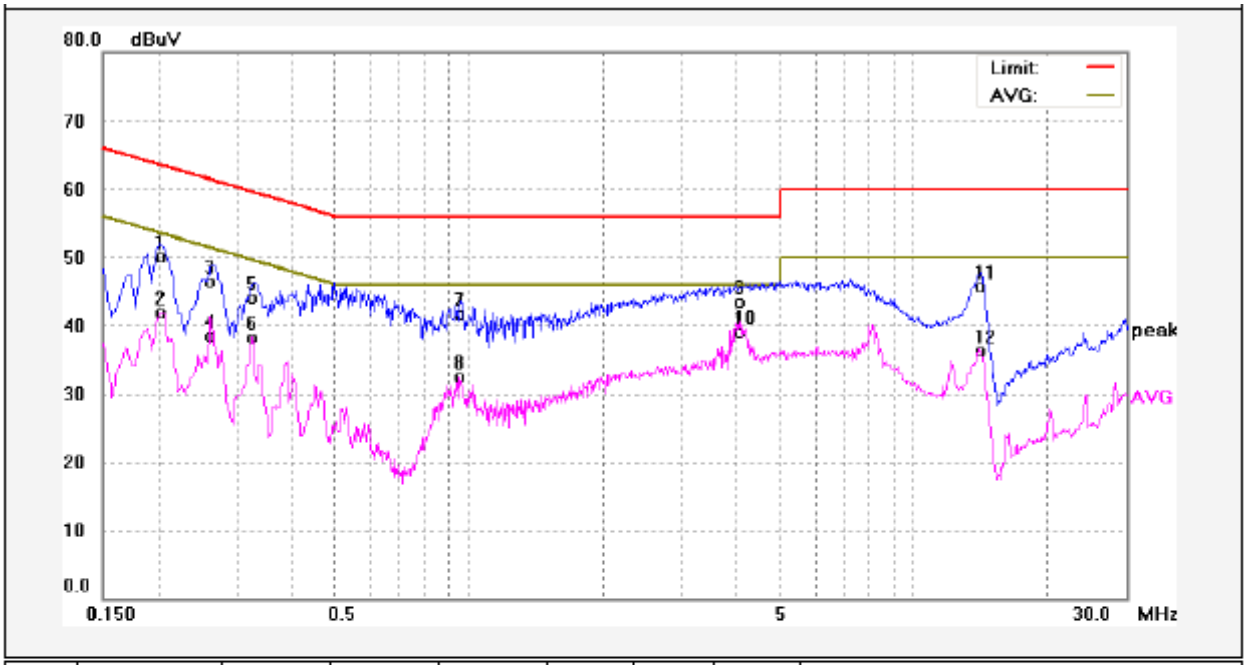
7.4 Conducted Emission Test Result

Live line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.2020	41.07	9.62	50.69	63.52	-12.83	QP	
2	0.2020	32.12	9.62	41.74	53.52	-11.78	AVG	
3	0.2779	40.38	9.64	50.02	60.88	-10.86	QP	
4	0.2779	29.00	9.64	38.64	50.88	-12.24	AVG	
5	0.3420	38.23	9.63	47.86	59.15	-11.29	QP	
6	0.3420	26.10	9.63	35.73	49.15	-13.42	AVG	
7	0.9260	33.27	9.80	43.07	56.00	-12.93	QP	
8	0.9260	23.10	9.80	32.90	46.00	-13.10	AVG	
9	4.0140	34.03	9.94	43.97	56.00	-12.03	QP	
10	4.0140	29.38	9.94	39.32	46.00	-6.68	AVG	
11	14.0780	33.64	10.22	43.86	60.00	-16.14	QP	
12	14.0780	25.42	10.22	35.64	50.00	-14.36	AVG	

Neutral line:



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Margin (dB)	Detector	Remark
1	0.2020	40.53	9.62	50.15	63.52	-13.37	QP	
2	0.2020	32.35	9.62	41.97	53.52	-11.55	AVG	
3	0.2620	36.94	9.64	46.58	61.36	-14.78	QP	
4	0.2620	28.77	9.64	38.41	51.36	-12.95	AVG	
5	0.3300	34.57	9.63	44.20	59.45	-15.25	QP	
6	0.3300	28.71	9.63	38.34	49.45	-11.11	AVG	
7	0.9580	31.82	9.81	41.63	56.00	-14.37	QP	
8	0.9580	22.66	9.81	32.47	46.00	-13.53	AVG	
9	4.0580	33.62	9.95	43.57	56.00	-12.43	QP	
10	4.0580	29.09	9.95	39.04	46.00	-6.96	AVG	
11	14.1619	35.44	10.22	45.66	60.00	-14.34	QP	
12	14.1619	26.09	10.22	36.31	50.00	-13.69	AVG	

8 Radiation Emission Test

Test Requirement: FCC Part15 Paragraph 15.249&15.209&15.205

Test Method: ANSI 63.10: 2010;ANSI 63.4: 2014

Measurement Distance: 3m

Test Result: PASS

15.249(a)Limit:

Fundamental frequency	Field strength of fundamental		Field strength of harmonics	
	mV/m	dBuV/m	uV/m	dBuV/m
902-928 MHz	50	94	500	54
2400-2483.5 MHz	50	94	500	54
5725-5875 MHz	50	94	500	54
24.0-24.25 GHz	250	108	2500	68

15.209 Limit:

Frequency (MHz)	Field Strength		Field Strength Limit at 3m Measurement Dist	
	uV/m	Distance (m)	uV/m	dBuV/m
0.009 ~ 0.490	2400/F(kHz)	300	10000 * 2400/F(kHz)	$20\log^{(2400/F(kHz))} + 80$
0.490 ~ 1.705	24000/F(kHz)	30	100 * 24000/F(kHz)	$20\log^{(24000/F(kHz))} + 40$
1.705 ~ 30	30	30	100 * 30	$20\log^{(30)} + 40$
30 ~ 88	100	3	100	$20\log^{(100)}$
88 ~ 216	150	3	150	$20\log^{(150)}$
216 ~ 960	200	3	200	$20\log^{(200)}$
Above 960	500	3	500	$20\log^{(500)}$

Note: RF Voltage(dBuV)=20 $\log_{10}$ RF Voltage(uV)

8.1 EUT Operation

Operating Environment **:**

Temperature: 23.5 °C

Humidity: 51.1 % RH

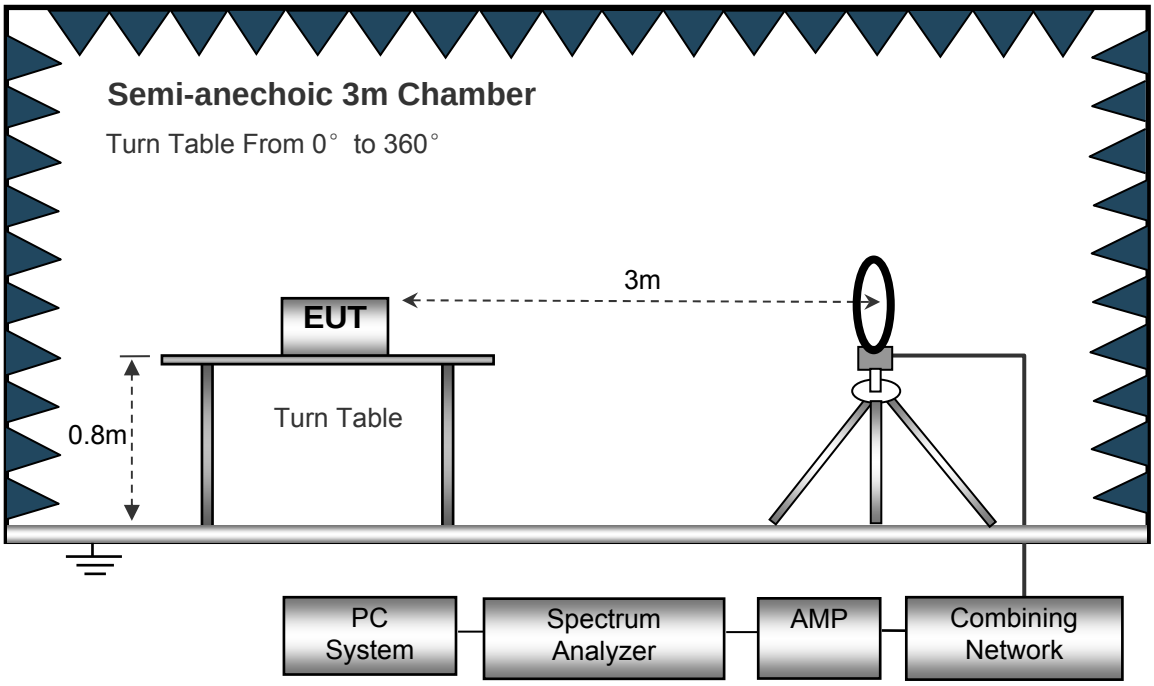
Atmospheric Pressure: 101.2kPa

EUT Operation **:**

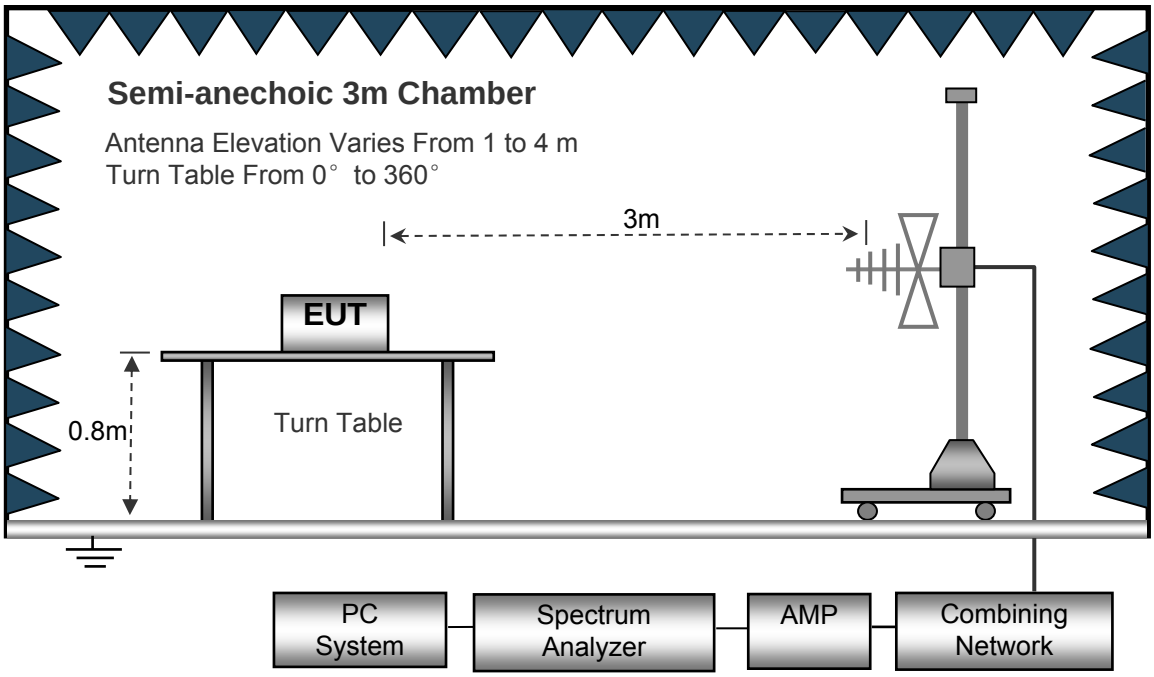
Refer to section 4.5.

8.2 Test Setup

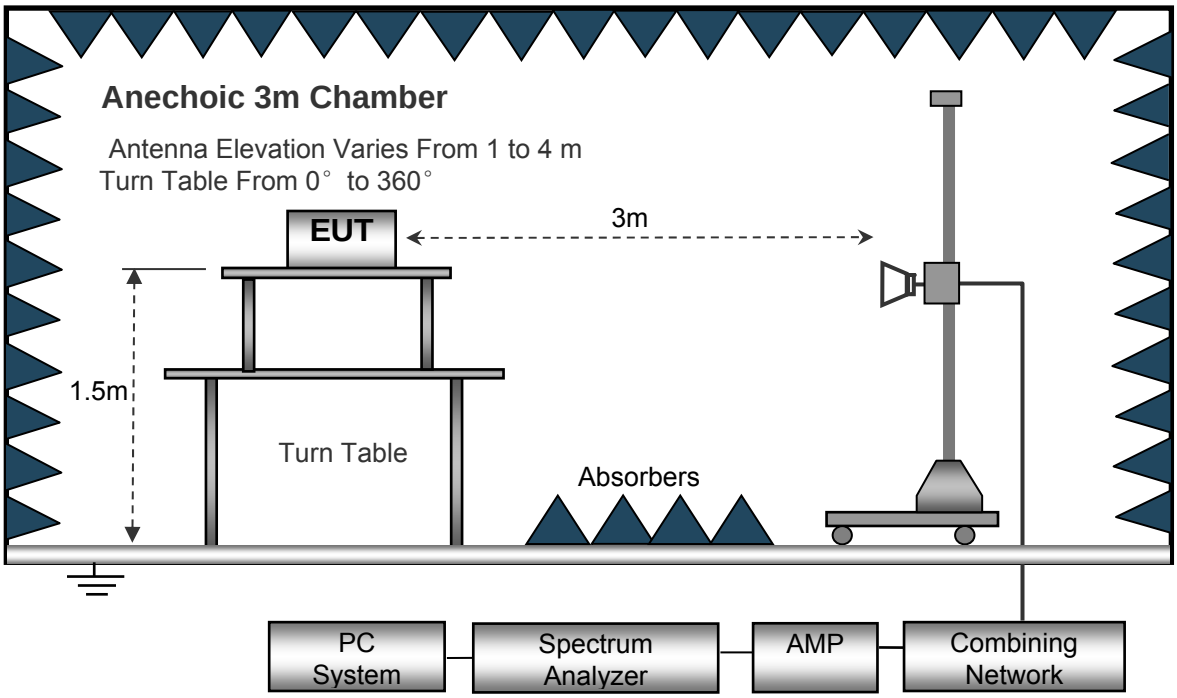
The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.4: 2003.
The test setup for emission measurement below 30MHz.



The test setup for emission measurement from 30MHz to 1GHz.



The test setup for emission measurement above 1 GHz.



8.3 Spectrum Analyzer Setup

Below 30MHz

Sweep Speed	Auto
IF Bandwidth	10kHz
Video Bandwidth	10kHz
Resolution Bandwidth	10kHz

30MHz ~ 1GHz

Sweep Speed	Auto
Detector	PK
Resolution Bandwidth	100kHz
Video Bandwidth	300kHz

Above 1GHz

Sweep Speed	Auto
Detector	PK
Resolution Bandwidth	1MHz
Video Bandwidth	3MHz
Detector	Ave.
Resolution Bandwidth	1MHz
Video Bandwidth	10Hz

8.4 Test Procedure

1. 1The EUT is placed on a turntable. For below 1GHz, the EUT is 0.8m above ground plane; For above1GHz, the EUT is 1.5m above ground plane.

2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.

3. EUT is set 3m away from the receiving antenna, which is moved from 1m to 4m to find out the maximum emissions. The spectrum was investigated from the lowest radio frequency signal generated in the device, without going below 9 kHz, up to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.

5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.

6. Repeat above procedures until the measurements for all frequencies are complete.

7. The radiation measurements are tested under 3-axes(X,Y,Z) position(X denotes lying on the table, Y denotes side stand and Z denotes vertical stand), After pre-test, It was found that the worse radiation emission was get at the X position. So the data shown was the X position only.

8.5 Test Result

Test Frequency: 9 KHz ~ 30 MHz

The measurements were more than 20 dB below the limit and not reported.

Test Frequency: 30MHz ~ 18GHz

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	Limit	Margin
				Height	Polar				
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
GFSK Low Channel									
268.35	35.23	QP	78	1.8	H	-13.35	21.88	46.00	-24.12
268.35	40.78	QP	6	1.4	V	-13.35	27.43	46.00	-18.57
2402.00	83.76	PK	25	1.7	H	-15.24	68.52	114.00	-45.48
2402.00	71.24	Ave	25	1.7	H	-15.24	56.00	94.00	-38.00
4804.00	45.12	PK	35	1.7	V	-1.06	44.06	74.00	-29.94
4804.00	42.78	Ave	35	1.7	V	-1.06	41.72	54.00	-12.28
7206.00	40.21	PK	152	1.7	H	1.33	41.54	74.00	-32.46
7206.00	35.78	Ave	152	1.7	H	1.33	37.11	54.00	-16.89
2340.19	45.80	PK	353	1.5	V	-13.19	32.61	74.00	-41.39
2340.19	38.71	Ave	353	1.5	V	-13.19	25.52	54.00	-28.48
2350.19	42.69	PK	335	2.0	H	-13.14	29.55	74.00	-44.45
2350.19	38.26	Ave	335	2.0	H	-13.14	25.12	54.00	-28.88
2485.21	44.57	PK	242	1.7	V	-13.08	31.49	74.00	-42.51
2485.21	37.56	Ave	242	1.7	V	-13.08	24.48	54.00	-29.52

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	Limit	Margin
				Height	Polar				
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
GFSK Middle Channel									
268.35	34.98	QP	314	1.9	H	-13.35	21.63	46.00	-24.37
268.35	39.96	QP	294	2.0	V	-13.35	26.61	46.00	-19.39
2440.00	98.92	PK	124	1.6	H	-15.31	83.61	114.00	-30.39
2440.00	84.25	Ave	124	1.6	H	-15.31	68.94	94.00	-25.06
4880.00	44.67	PK	218	1.8	V	-0.62	44.05	74.00	-29.95
4880.00	43.18	Ave	218	1.8	V	-0.62	42.56	54.00	-11.44
7320.00	41.00	PK	115	2.0	H	2.21	43.21	74.00	-30.79
7320.00	35.63	Ave	115	2.0	H	2.21	37.84	54.00	-16.16
2321.33	45.31	PK	115	1.7	V	-13.19	32.12	74.00	-41.88
2321.33	38.94	Ave	115	1.7	V	-13.19	25.75	54.00	-28.25
2371.30	43.53	PK	116	1.2	H	-13.14	30.39	74.00	-43.61
2371.30	36.12	Ave	116	1.2	H	-13.14	22.98	54.00	-31.02
2487.81	44.20	PK	259	1.3	V	-13.08	31.12	74.00	-42.88
2487.81	37.59	Ave	259	1.3	V	-13.08	24.51	54.00	-29.49

Frequency	Receiver Reading	Detector	Turn table Angle	RX Antenna		Corrected Factor	Corrected Amplitude	Limit	Margin
				Height	Polar				
(MHz)	(dBμV)	(PK/QP/Ave)	Degree	(m)	(H/V)	(dB)	(dBμV/m)	(dBμV/m)	(dB)
GFSK High Channel									
268.35	36.01	QP	347	1.2	H	-13.35	22.66	46.00	-23.34
268.35	38.48	QP	90	1.4	V	-13.35	25.13	46.00	-20.87
2480.00	99.24	PK	123	0.9	H	-15.38	83.86	114.00	-30.14
2480.00	75.41	Ave	123	0.9	H	-15.38	60.03	94.00	-33.97
4960.00	43.41	PK	150	1.2	V	-0.24	43.17	74.00	-30.83
4960.00	43.72	Ave	150	1.2	V	-0.24	43.48	54.00	-10.52
7440.00	40.88	PK	81	1.1	H	2.84	43.72	74.00	-30.28
7440.00	35.95	Ave	81	1.1	H	2.84	38.79	54.00	-15.21
2339.14	46.99	PK	217	1.7	V	-13.19	33.80	74.00	-40.20
2339.14	38.89	Ave	217	1.7	V	-13.19	25.70	54.00	-28.30
2359.10	42.34	PK	357	2.0	H	-13.14	29.20	74.00	-44.80
2359.10	37.41	Ave	357	2.0	H	-13.14	24.27	54.00	-29.73
2487.53	43.66	PK	257	1.2	V	-13.08	30.58	74.00	-43.42
2487.53	36.94	Ave	257	1.2	V	-13.08	23.86	54.00	-30.14

Test Frequency: From 18GHz to 25GHz

The measurements were more than 20 dB below the limit and not reported.

9 Outside of Band Emission

Test Requirement: 15.249(d):Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in §15.209, whichever is the lesser attenuation.

Test Method: ANSI C63.10:2010

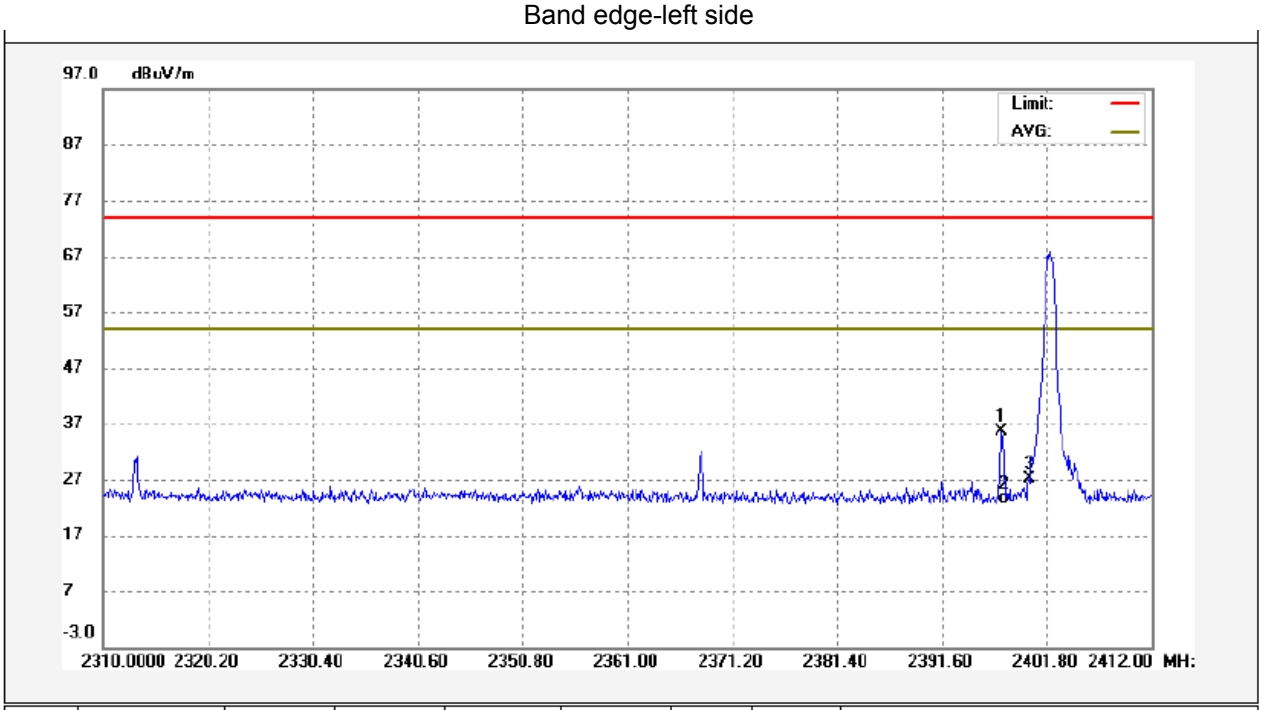
Test Mode: Transmitting

9.1 Test Procedure

Refer to section 8.4 of this test report.

9.2 Test Result

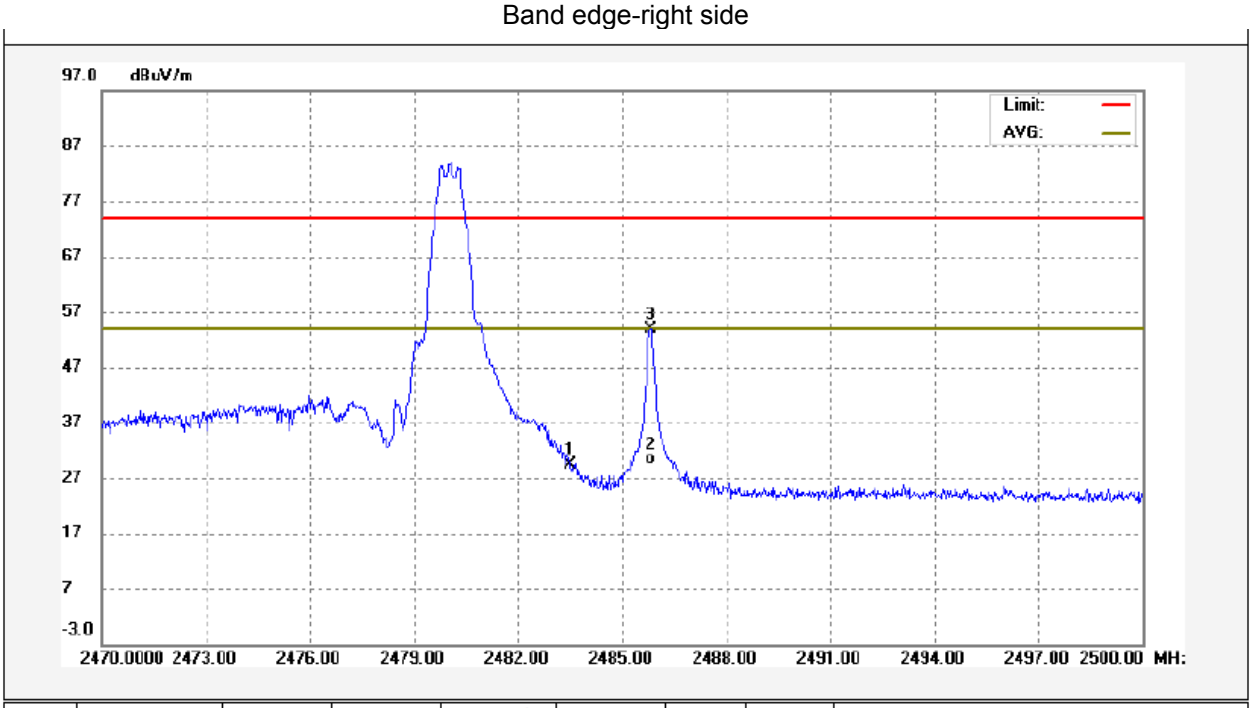
Band edge-left side



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	2397.414	50.81	-15.23	35.58	74.00	-38.42	peak	
2	2397.694	38.94	-15.23	23.71	54.00	-30.29	AVG	
3	2400.000	42.37	-15.24	27.13	74.00	-46.87	peak	

Remark: The worst case (Horizontal) was recoded.

Band edge-right side



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Remark
1	2483.500	44.65	-15.39	29.26	74.00	-44.74	peak	
2	2485.798	45.85	-15.40	30.45	54.00	-23.55	AVG	
3	2485.810	69.28	-15.40	53.88	74.00	-20.12	peak	

Remark: The worst case (Horizontal) was recoded.

10 Bandwidth Measurement

Test Requirement: FCC CFR47 Part 15 Section 15.215(c)

Test Method: ANSI C63.10:2010

Test Mode: Transmitting

10.1 Test Procedure

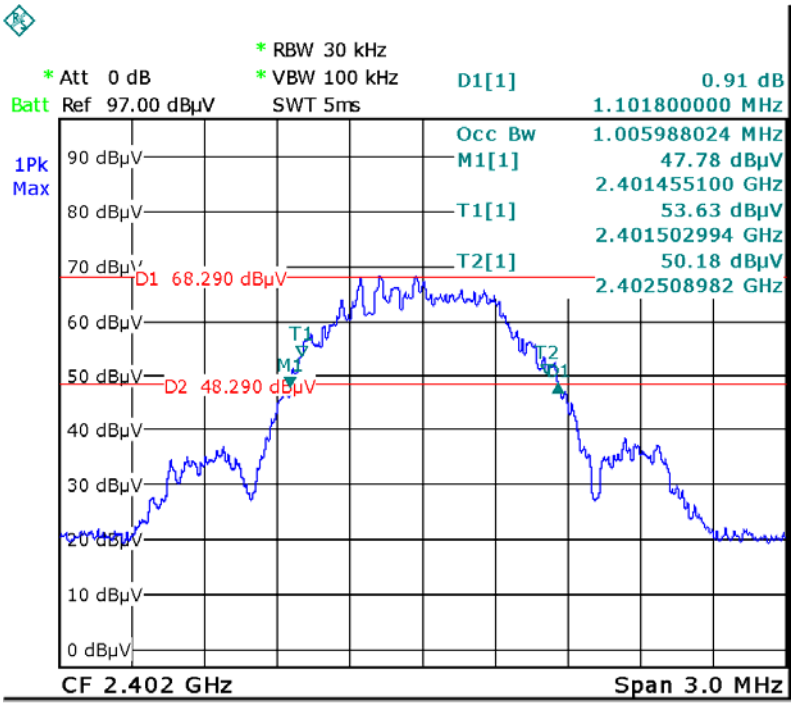
1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum;
2. Set the spectrum analyzer: RBW = 30 kHz, VBW = 100 kHz

10.2 Test Result

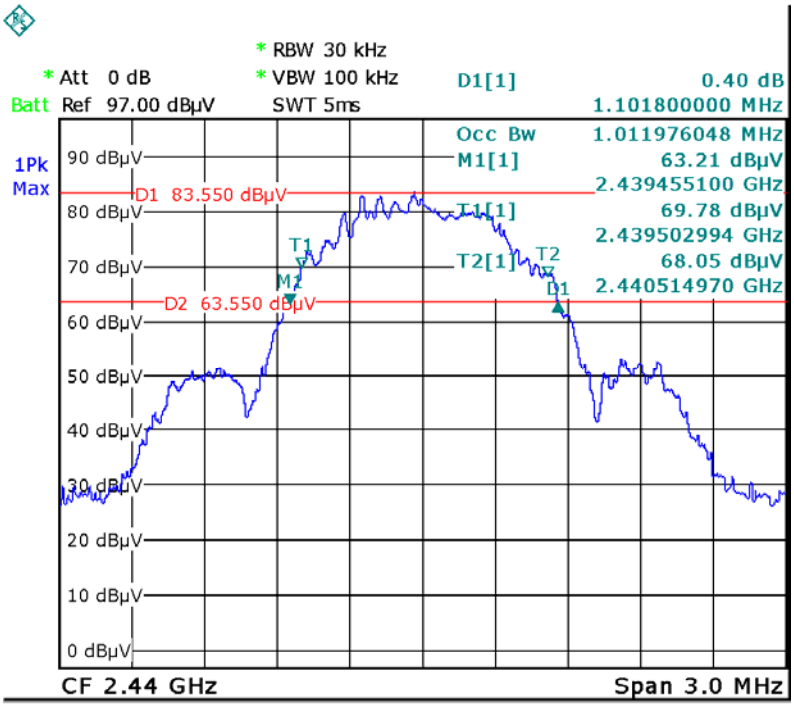
Operation mode	20dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low channel	1.018	1.006
Middle channel	1.102	1.012
High channel	1.102	1.006

Test result plot as follows:

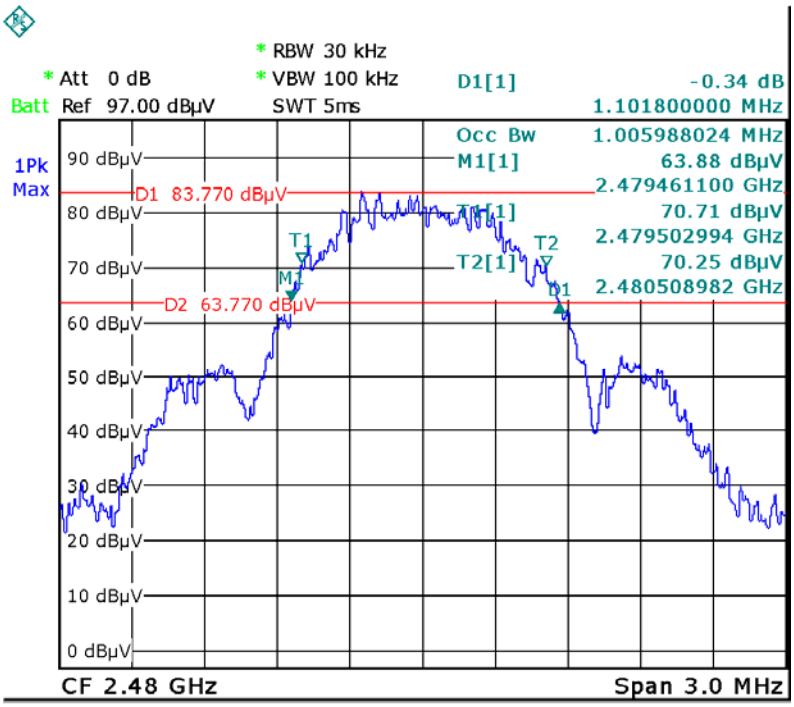
Mode: Low channel



Mode: Middle channel



Mode: High channel



11 RF Exposure

Test Requirement: FCC Part 1.1307

Evaluation Method: FCC Part 2.1091 & KDB 447498 D01 General RF Exposure Guidance v06

11.1 Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

11.2 The procedures / limit

(0)Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength € (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm^2)	Averaging Time $\|E\|^2$,$\|H\|^2$or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength € (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm^2)	Averaging Time $\|E\|^2$,$\|H\|^2$ or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

11.3 MPE Calculation Method

For BLE						
Frequency(MHz)	E_{Meas}(dBuV/m)	EIRP(dBm)	EIRP(mW)	Power Density (mW/cm2)	Limit of Power Density (mW/cm2)	Result
2480.00	83.86	-11.34	0.073	0.0000145	1.0	Compliance

$EIRP=E_{Meas}+20\log(d_{Meas})-104.7$, $PD=EIRP / 4\pi d^2$

Where

EIRP is the equivalent isotropically radiated power, in dBm

E_{Meas} is the field strength of the emission at the measurement distance, in dBuV/m

d_{Meas} is the measurement distance, in m

d is the minimum mobile separation distance, d=0.2m

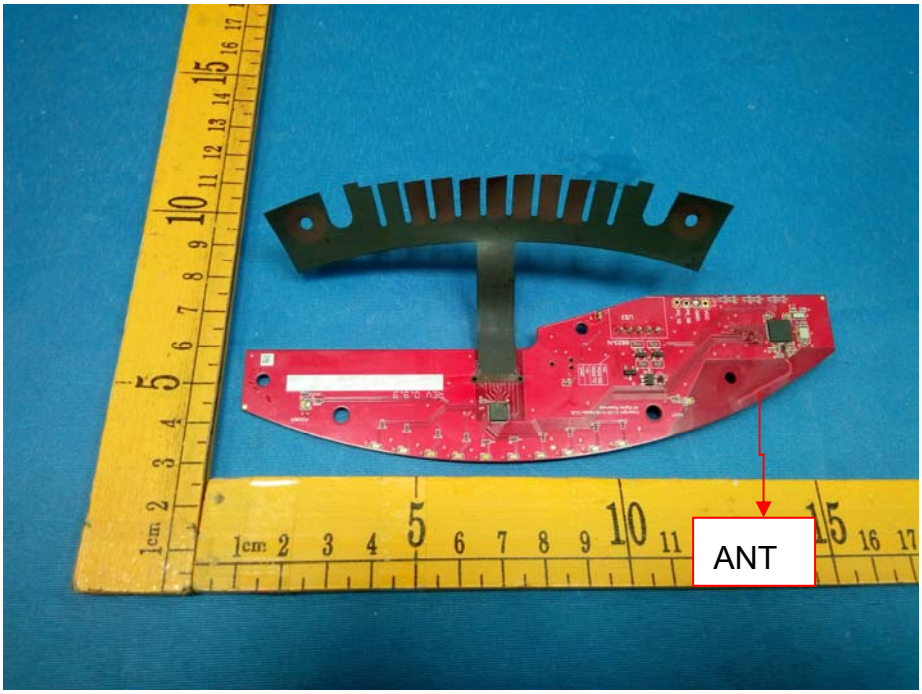
12 Antenna Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

Result:

The EUT has one PCB Printed Antenna, the gain is 0dBi. meets the requirements of FCC 15.203.

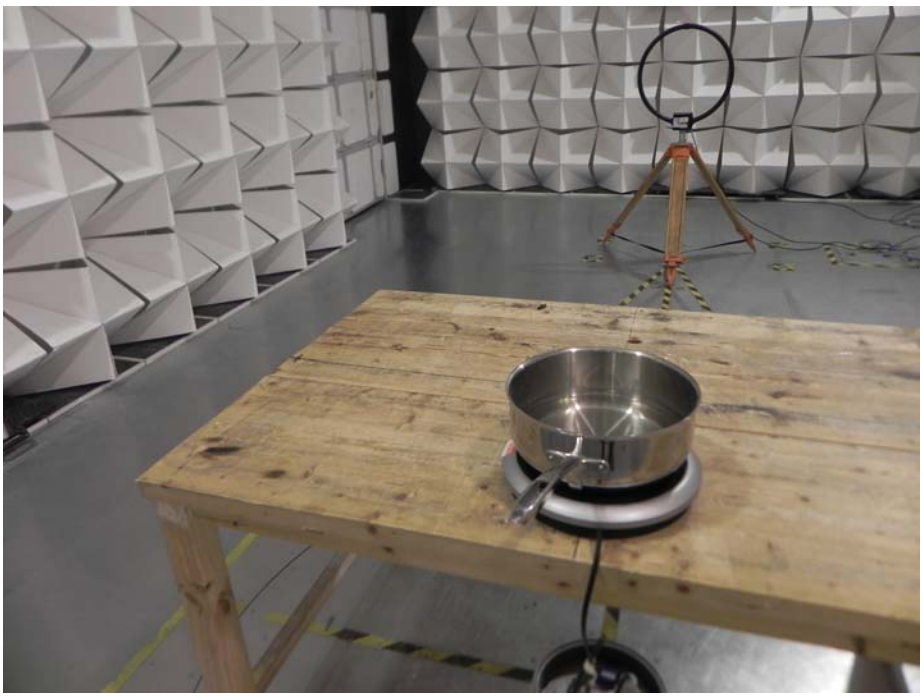


13 Photographs- Model 41000 Test Setup Photos

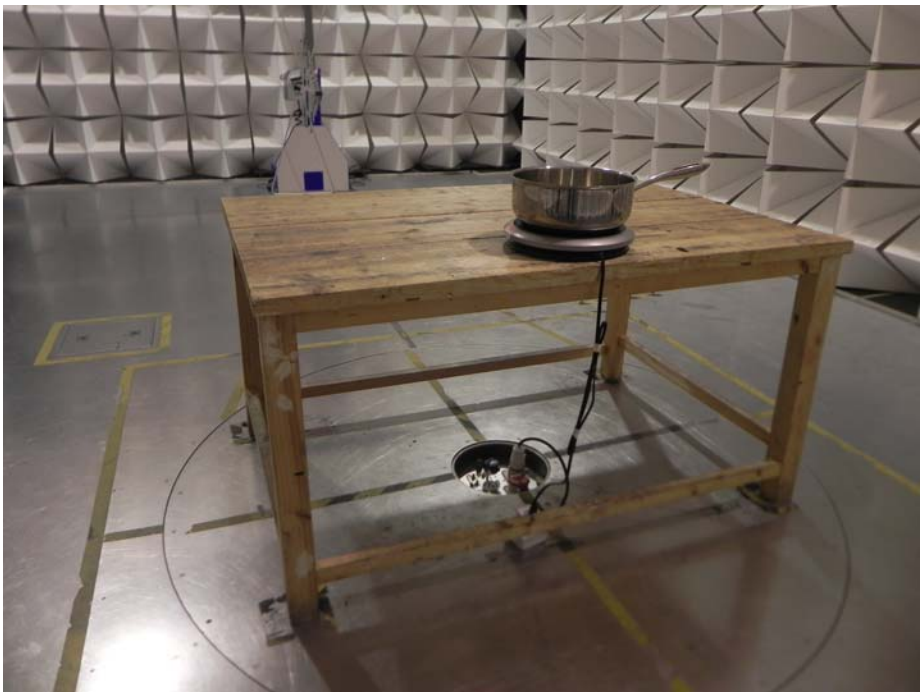
13.1 Photograph – Conducted Emission Test Setup at Test Site 1#

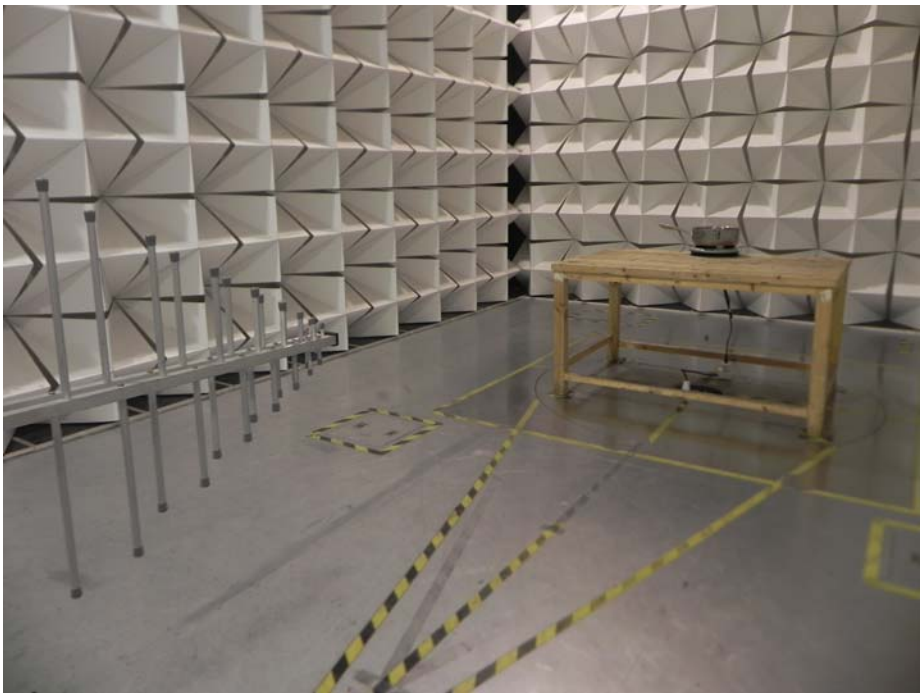
13.2 Photograph - Radiation Emission

Test frequency from 9 KHz to 30MHz at test site 2#



Test frequency from 30MHz to 1GHz at test site 2#

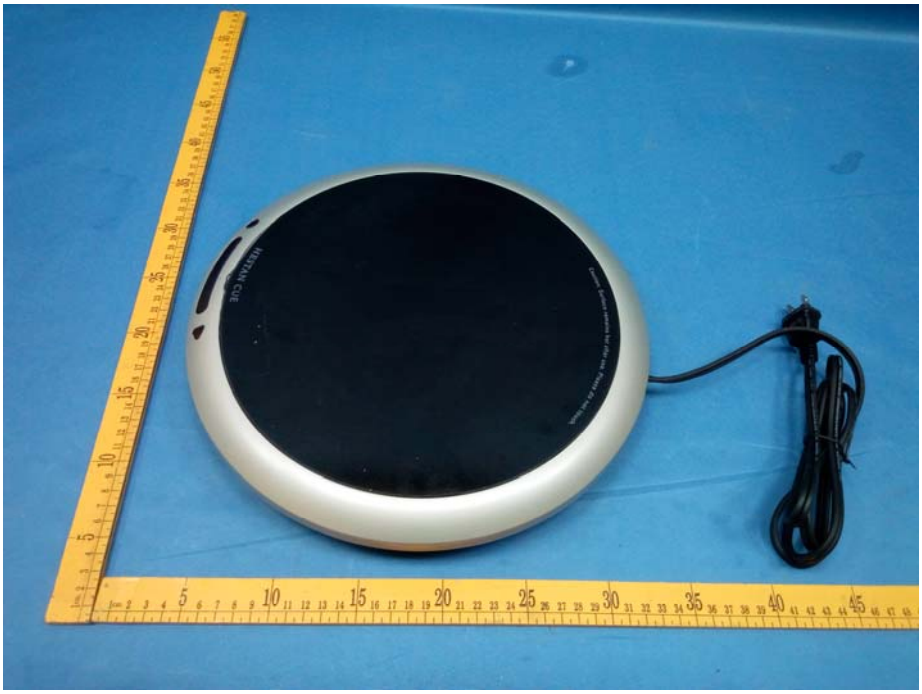


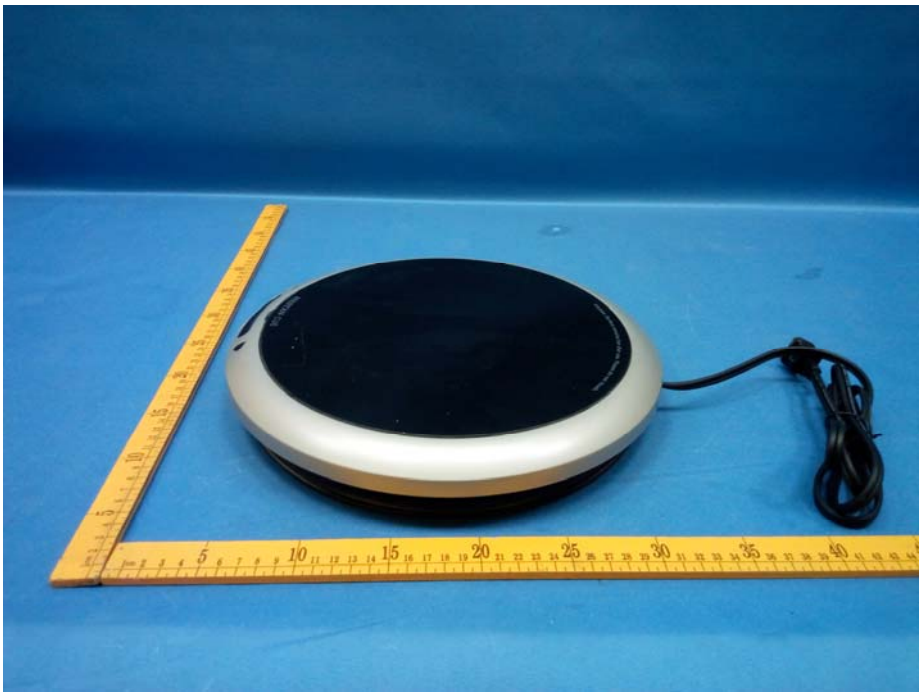


Test frequency above 1GHz at test site 1#

14 Photographs - Constructional Details

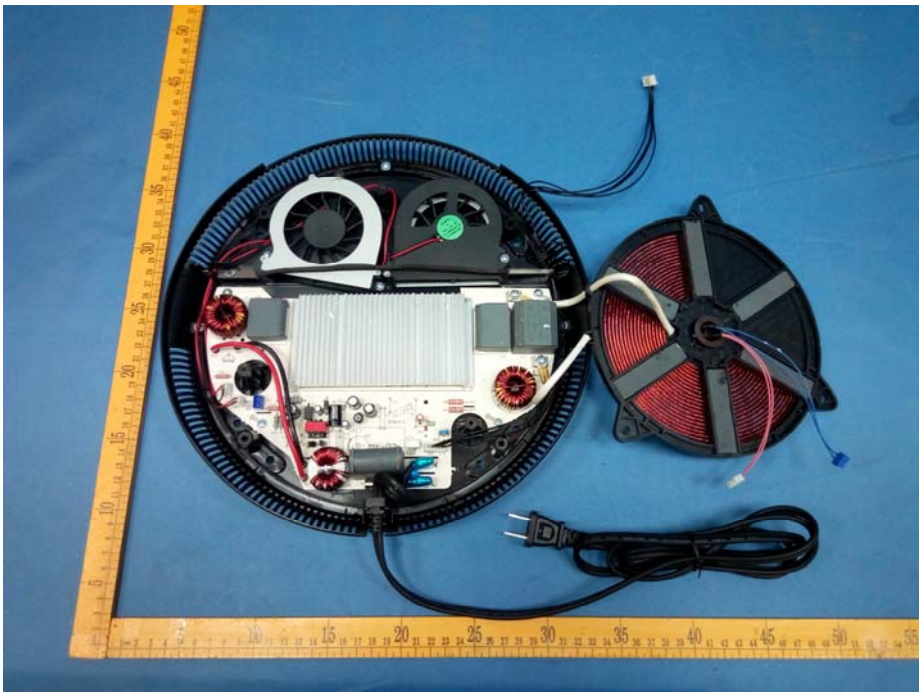
14.1 Photographs –Model 41000 External Photos

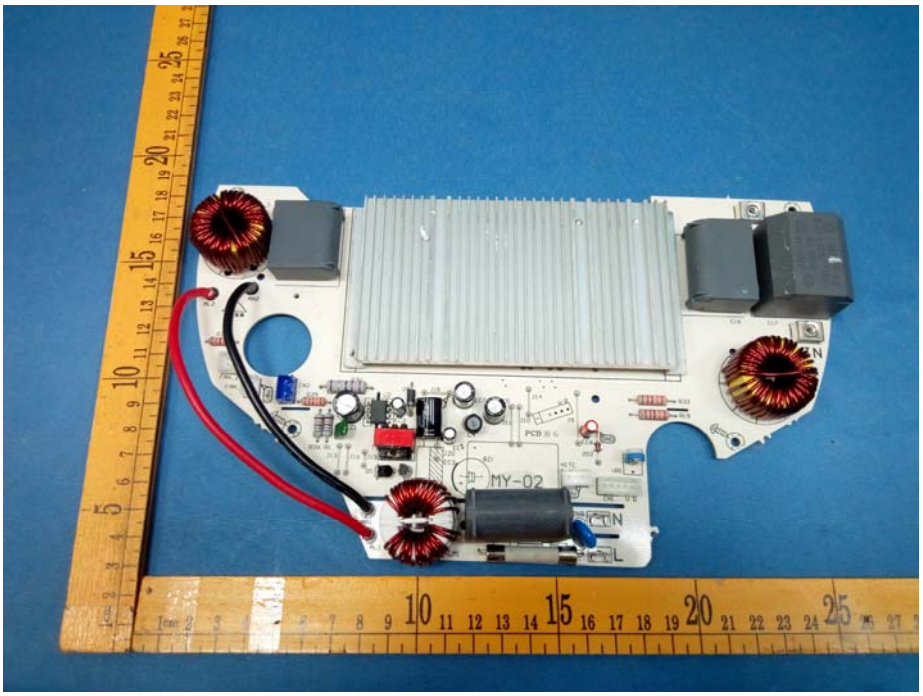





HESTAN CUE

14.2 Photographs – Model 41000 Internal Photos

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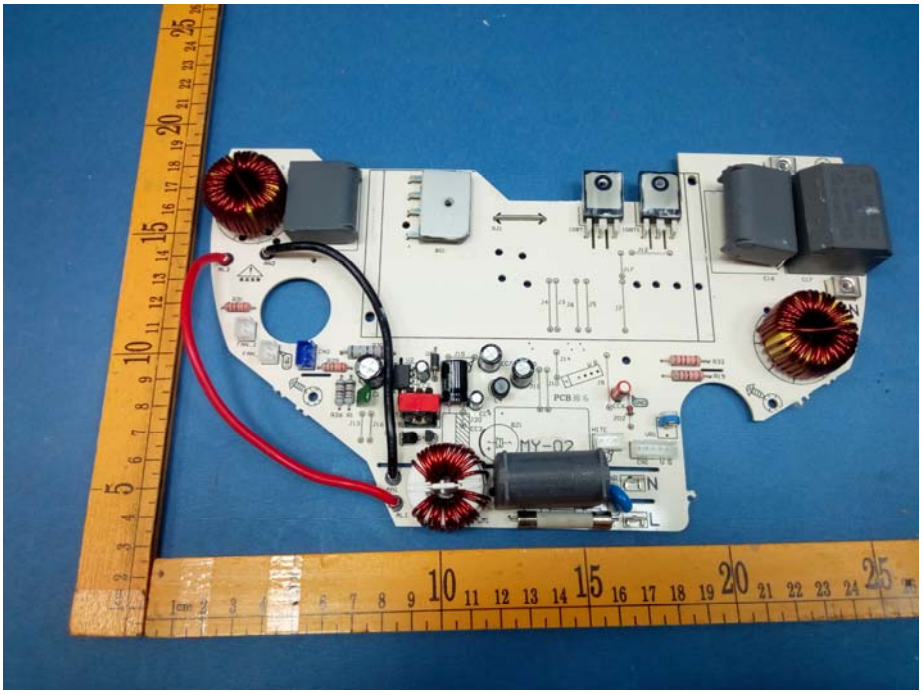
N
L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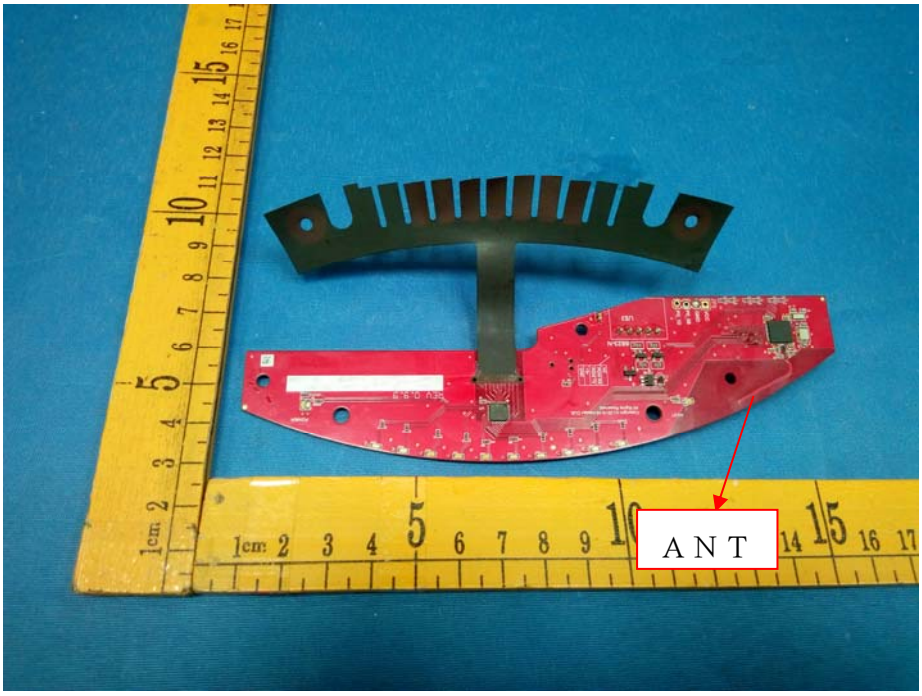
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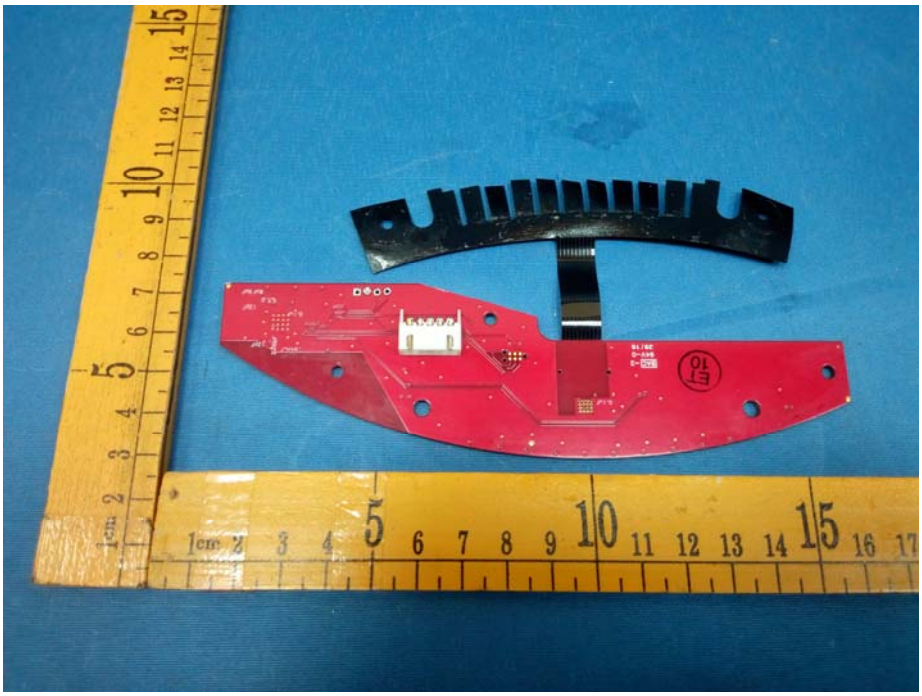

======End of Report======